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Re:	U.S. Patent Application No. 10/553,636		

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Attorney Docket No. 052003-0014

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: U.S. Patent Application of Wolfgang Flatow)	Examiner: James Hwa
)	
Application No. 10/553,636)	Conf. No.: 6637
)	
Filed: October 19, 2005)	Art Unit: 2163
)	
For: UNIVERSAL DATABASE SCHEMA)	Atty Docket No.: 052003-0014

PROPOSED AGENDA FOR TELEPHONE INTERVIEW

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant is submitting the proposed agenda for discussion during a telephone interview with the Examiner Hwa concerning the above application. The proposed set of questions are being submitted informally in connection with the interview, and are not considered to be restrictive of the topics that may be discussed during the interview. Claim 1, as it currently appears in the application, is being submitted at the end of this agenda.

Applicant would like to propose any day the week of **January 12th-15th (Monday through Thursday)**, at **4:00 Eastern time** for the interview. The proposed time is set to accommodate Applicant's counsel located in Australia, who would also like to participate in the interview.

Proposed Questions/Issues for Interview

These questions are meant to address some of the Examiner's comments made in the Response to Arguments section of the Office Action mailed September 2, 2008:

1. At page 3, paragraph 1 of the Office Action, the Examiner disagrees with the assertion that the metadata tables of Lec are not a database schema. In doing so, references is made to Lee, namely column 15, lines 40-55. However this portion of Lee states that:

"the relational database can be any of the well-known relational databases"

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The skilled person would understand that well-known databases are standard table-per-object type schema databases. Such schemas do not define tables as claimed in claim 1, highlighting that the schema of Lee is not relevant to the claimed arrangement.

Irrespective of this, the portion of the document referred to by the Examiner goes on to state that:

"the DTD is loaded by the system and used in metadata format to generate the relational schema of the second data definition portion"

In other words, the DTD and metadata tables are used to generate the schema and are not the schema itself.

Please clarify why the Examiner disagrees with the statement that the metadata tables of Lee are not a database schema, when Lee explicitly draws a distinction between the relational schema and the DTD (used in metadata format) to *generate* the relational schema.

2. At page 3, paragraph 3, the Examiner disagrees with our argument that the prior art discloses data representative of the DTD being stored in metadata tables before being used to *generate* a relational schema. However, Lee explicitly states that the DTD in metadata format is used to *generate* the schema. Please clarify why you disagree with the statements put forth by Applicant.

3. At page 4, paragraphs 2 and 3, the Examiner disagrees with the argument that Lee describes that as the relational schema is achieved by mapping the metadata tables, the mapping requirement means that the schema would not have a similar structure to the metadata tables. In the current specification the mapping is used to described how a prior art table-per-object type schema can be mapped to a schema according to claim 1 [0054].

The Examiner goes on to state that "mapping of metadata tables" is not recited in the claim. Mapping is an operation used to transform data from one format or arrangement to another format or arrangement, and mapping as described in the prior art, may not achieve the same effect. Applicant seeks clarification as to why the Examiner wants Applicant to include in the claim a feature of the prior art, which is not part of the claimed invention.

4. At page 4, paragraph 5, the Examiner rejected the argument regarding the interrelationship between the first and second tables for storing entity types and names of entity types respectively. The Examiner refers to portions of Lee, such as column 8, lines 46-54, column 28, lines 53-58 and column 5, lines 3-12. The Examiner indicates that Lee teaches the generator can alter the schema to add a column to each table, and that the generator can add links between tables. The Examiner goes onto indicate that attributes can be stored as groups and that IBM has proposed the concept of breaking DTDs into elements etc. Please explain the reference to the groups of attributes, as this is not clear.

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For example, attributes of Lee do not correspond to entities or entity types as claimed in claim 1, and therefore reference to attributes appears completely irrelevant to the point the Examiner is addressing. In addition to this, even though Lee describes links between tables, the Examiner has not identified first and second tables which store entity types and entities as required by claim 1. Please clarify which tables in the schema of Lee form the first and second tables.

The Examiner goes on to disagree with the argument that Lee does not provide value tables related to the second and third tables. However, it is noted on page 11, paragraph 2 that "Lee does not explicitly teach the claimed limitation 'one or more value storage tables related to the second and third tables to associate stored field values with entities.'" Applicant would appreciate clarification on this point.

5. At page 5 and 6 of the office action, the Examiner disagreed that the schema of Lee is a standard table-per-object schema, and that the claimed invention can replace such schemas, allowing new entities to be added to a database without requiring addition of new tables. In this regard, the Examiner goes on to indicate that these features are not claimed and cannot be relied upon. We would appreciate further clarification on this point.

Again, we would highlight that as already identified by the Examiner, Lee refers to the relational database being a well-known relational database (column 15, lines 41-43). As will be appreciated by the Examiner, the skilled person would understand from this that Lee describes a table-per-object schema, which is the standard well-known database schema.

The structure of claim 1 is not a table-per-object schema, as the requirements of the claim do not allow a table-per-object arrangement to be supported. Furthermore, as the first and second tables define entity types and names, an entity can be added without requiring a table to be added. This is a structural advantage over the prior art.

Additional comments:

In the Office Action, the claims are being rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of O'Brien. In view of the additional comments below, it would not be obvious to one skilled in the art to modify Lee in view of O'Brien as suggested in the Office Action.

The four-table structure of the present invention utilizes a diamond configuration (see Figure 2 of PCT/AU2004/000522). The bottom-level table containing the data (the Field table) references a table containing the data types (the FieldType table) and also a parent table (the Entity table). The Entity and FieldType tables references the top-level parent table (EntityType). In this structure, the bottom-level data table references the top-level parent table only indirectly, through either the FieldType or the Entity tables.

The structure of the database schema generated by Lee is either a one-to-one or a one-to-many configuration. See column 7, line 17-34. This schema will not have the diamond configuration

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of the present invention. This means that the child table(s) will relate directly the parent table, without having the FieldType and Entity intermediaries.

The structure of the O'Brien schema is a chain configuration. The bottom-level table of O'Brien that contains the data is referred to as MEM Data. This table, in some ways like the Universal Database Schema data table (the Field table), contains the data for the parent entities. The key difference is that the data table from O'Brien relates to only the parent table (MEM Column), and not to BOTH a data type and parent table as in the present invention. The MEM Column table relates to a parent table, MEM Table, which then relates to its parent, the Owner table (see Figure 2, which shows a picture of the chain-structure starting at MEM Data, MEM Column, MEM Table, and ending at Owner). Figure 3 of O'Brien (showing the data within the tables) verifies that the tables are configured in a chain-structure, with Mem Data referencing Mem Column, which references MEM Table, which references Owner. The diamond structure of the present invention is unique from the chain structure of O'Brien.

Another subtle distinction of the present invention from O'Brien, that makes apparent the practical differences of the different configurations, is how new entities are added and relate to each other. In O'Brien, these relationships are created through the MEM relationship table, and the references are created solely to the MEM Column table (note how MEM table and MEM Data are separated by MEM Column from Core Table and MEM Relationship in Figure 2 of O'Brien). Contrast that with Figure 5 of the present invention as seen in the PCT/AU2004/000522, where the relationship tables are referenced by all three of the EntityType, Entity, and Field tables.

Claim

1. (Previously presented) A computer software program recorded on a machine-readable medium and containing machine readable instructions for execution by an electronic processor to provide a database management system, the program comprising:
 - a database management schema comprising;
 - a first table to store the names of various entity types;
 - a second table related to the first table to store the names of entities of the various entity types;
 - a third table related to the first table to store the names of fields in respect of the various entity types;
 - one or more value storage tables related to the second and third tables to associate stored field values with entities; and
 - identifiers to indicate the nature of the data to be stored in each of said tables.

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Again, the above questions and comments are being submitted informally in view of the upcoming telephone interview. Applicant would appreciate Examiner Hwa contacting the undersigned to confirm the date and time of the interview.

Respectfully submitted,

Date: January __, 2009

By: _____
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CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence is being sent by facsimile to Examiner Hwa at fax no. 571-270-2285, on January __, 2009.

Sarah J. Goodnight
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